

02/18/14 Agenda

- Warm up
- Time to turn in late work!
- Review 6.6 Worksheet - Systems of Linear Inequalities
- Test Review - Sections 6.1-6.6
- Homework - Chapter Review Packet 6.1-6.6
 - We will review tomorrow & collect before the Test on Thursday
- Tomorrow - Target Stations Review
- **Thursday (02/20) - Chapter 6 Test**

Warm Up - Homework out!

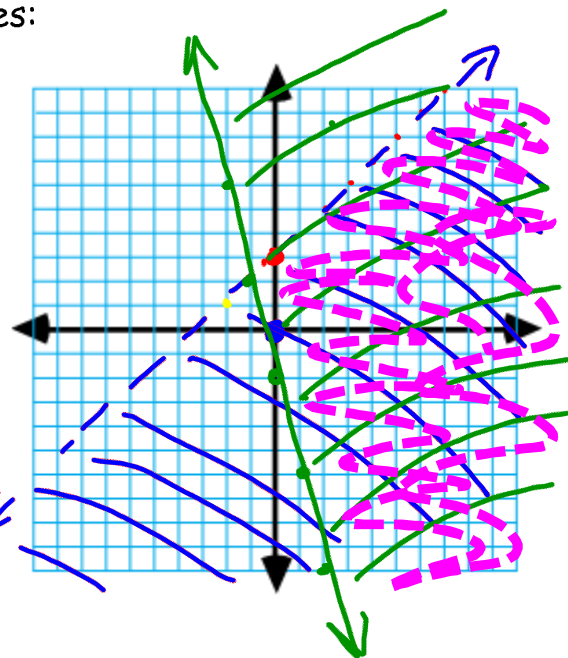


Graph the following System of Inequalities:

$$\begin{aligned} y &< x + 3 \\ y &\geq -4x - 2 \end{aligned}$$

$m = \frac{1}{1} \quad b = 3$

$m = \frac{-4}{1} \quad b = -2$

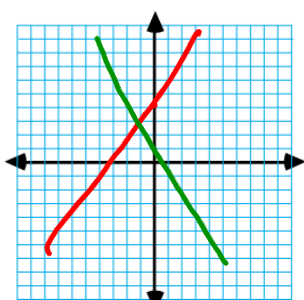


Chapter Review 6.1-6.6 - Systems of Equations & Inequalities

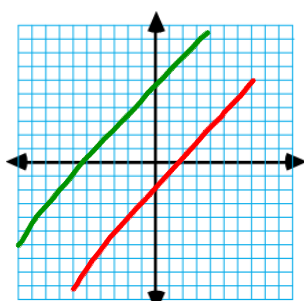
February 18, 2014

Test on Thursday!

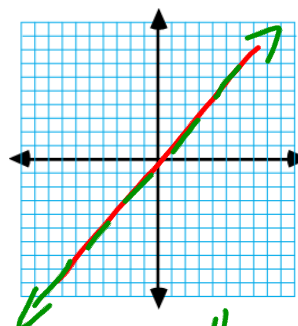
What are the 3 possibilities for a System of Equations?



ONE
SOLUTION
ORDERED
PAIR



NO SOLUTION
FALSE EXPRESSION
 $17 \neq 3$



∞ #
SOLUTIONS
TRUE
EXPRESSION

Given the system:

$$\begin{cases} 2x + 4y = -2 \\ y = -2x - 5 \end{cases}$$

$$5 = 5$$

Is $(-3, 1)$ a solution to the system? YES

How about $(-1, 0)$? NO

Chapter Review 6.1-6.6 - Systems of Equations & Inequalities

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Section 6.1 - Solve by Graphing

- Is a point a solution to a system?
- Graphing
 - Lines Intersect - One Solution
 - Lines Parallel - No Solution
 - Same Slope, Different Intercept
 - Same Line - Infinite Number of Solutions
 - Same Slope, Same Intercept

Section 6.2 - Solve by Substitution

- Rewrite 1 equation to get a variable by itself
- Substitute it into the other equation
- Solve for the variable
- Plug the value back into 1 of the original equations and solve for the missing variable
- Write the answer as an ordered pair

Section 6.3 - Solve by Elimination

- Find variable with like coefficients
 - If there are no like coefficients, multiply one or both equations by a value that will give you like coefficients
- If different sign, add; if same sign, subtract
- Solve for the variable
- Plug the value back into 1 of the original equations and solve for the missing variable
- Write the answer as an ordered pair

Chapter Review 6.1-6.6 - Systems of Equations & Inequalities

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Section 6.2 & 6.3 - Substitution & Elimination

- When you are solving the equations , you will get one of three types of answer:
 - A value for x and y
 - This means there is one solution
 - A FALSE expression like $(12 = -5)$
 - This means there is no solution
 - A TRUE expression like $(7 = 7)$
 - This means there is an infinite # of solutions

Section 6.4 - Applications (Word Problems)

- Define two variables and what they stand for
- Write two equations from the word problem
- Solve using whatever method you prefer

Section 6.5 - Linear Inequalities

- Graph the same way you would graph a linear equation but with two extra questions
 - Solid or Dashed Line
 - Shade Above or Below the line

Section 6.6 - Systems of Linear Inequalities

- Graph both inequalities (see Section 6.5)
- Solution is section where both solutions overlap